Regional Tribal Water Plenary Meeting

June 13, 2009

Water Resources

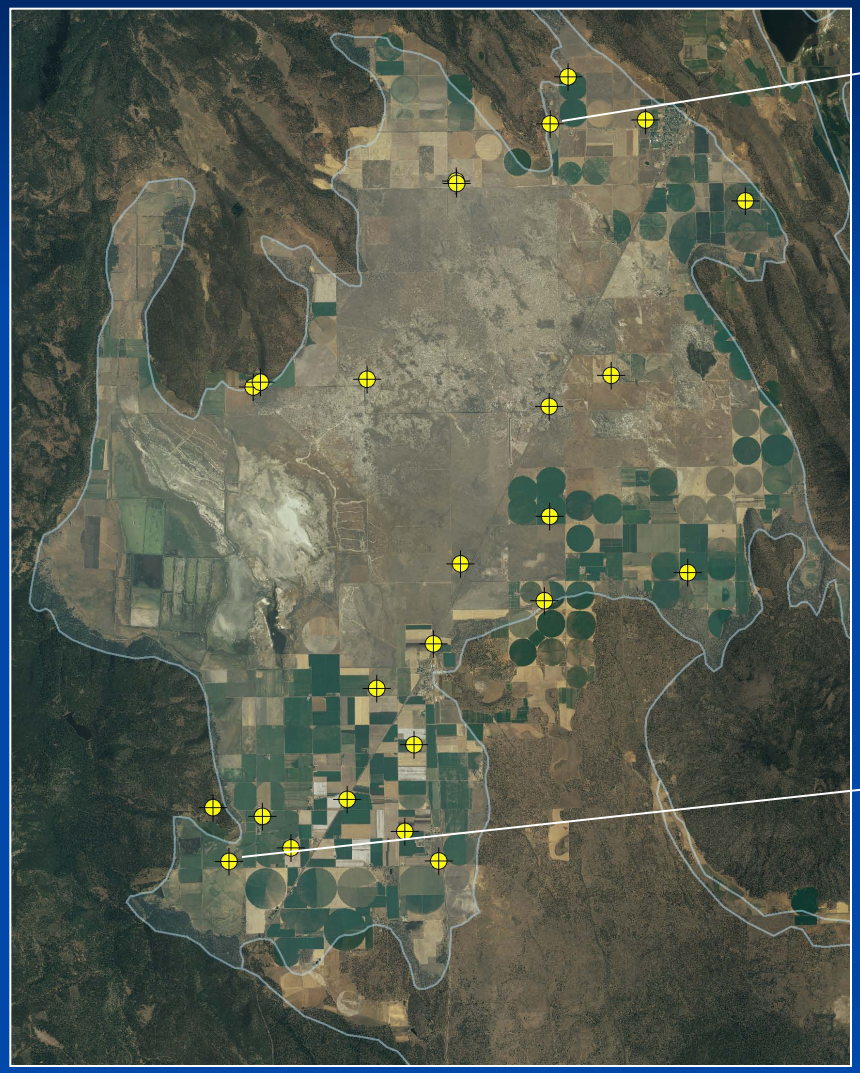
- DWR Northern Region and data collection
- Groundwater Conditions 2009
  - Butte Valley
  - Scott Valley
  - Shasta Valley
- Shasta Valley Data Needs Assessment

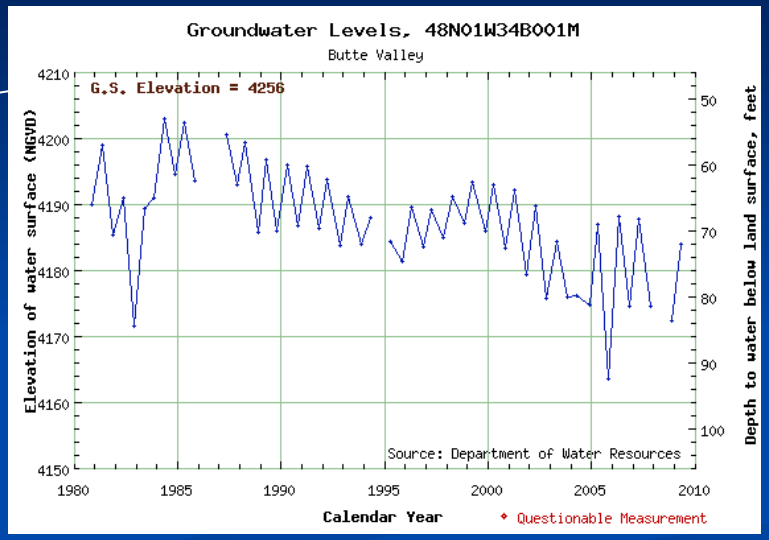
DWR Northern Region

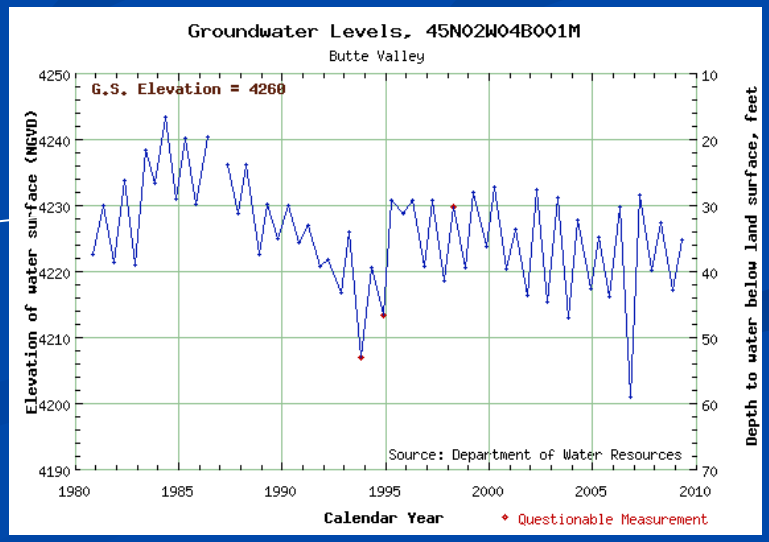
DWR Data Collection…

- Groundwater Level Monitoring
- Groundwater Chemistry
- Surface Water Chemistry
- Land and Water Use
- Surface Water Measurements

Butte Valley Monitoring Grid





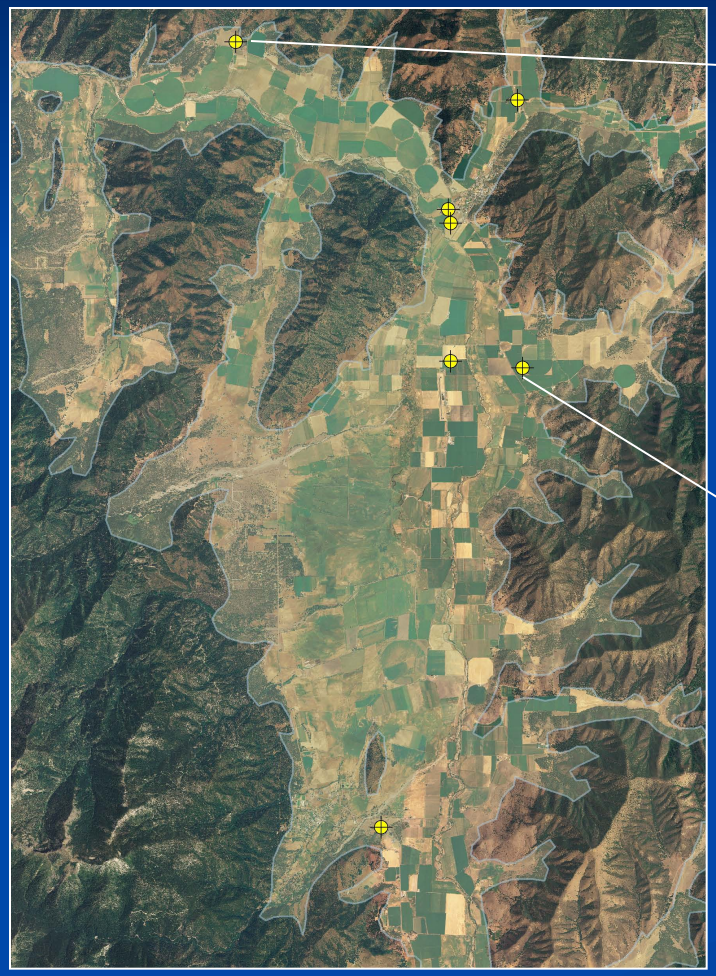


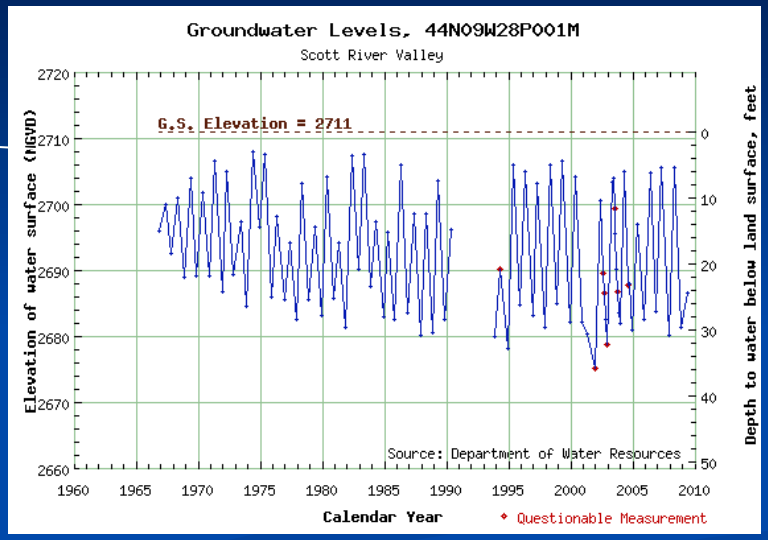
Butte Valley Groundwater 2009

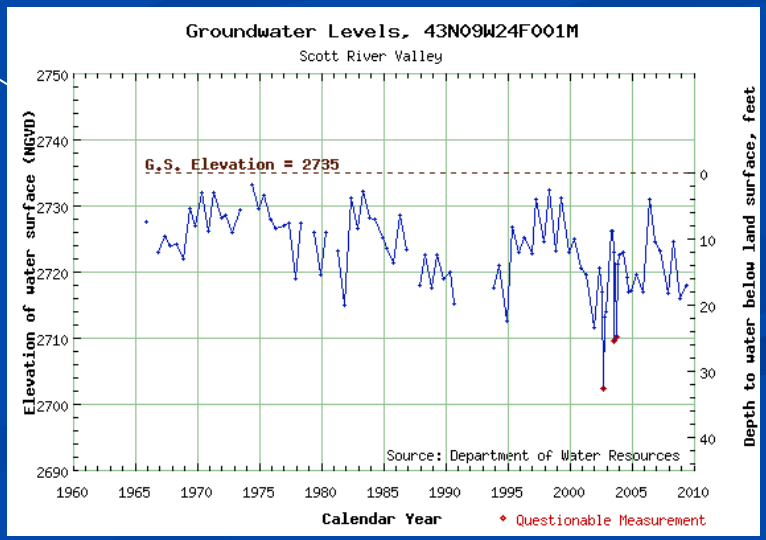
Spring 2008 – Spring 2009 Changes in Groundwater Levels

- Average Change: -2 feet
- Greatest Change: -4.5 feet

DWR Scott Valley Monitoring Grid





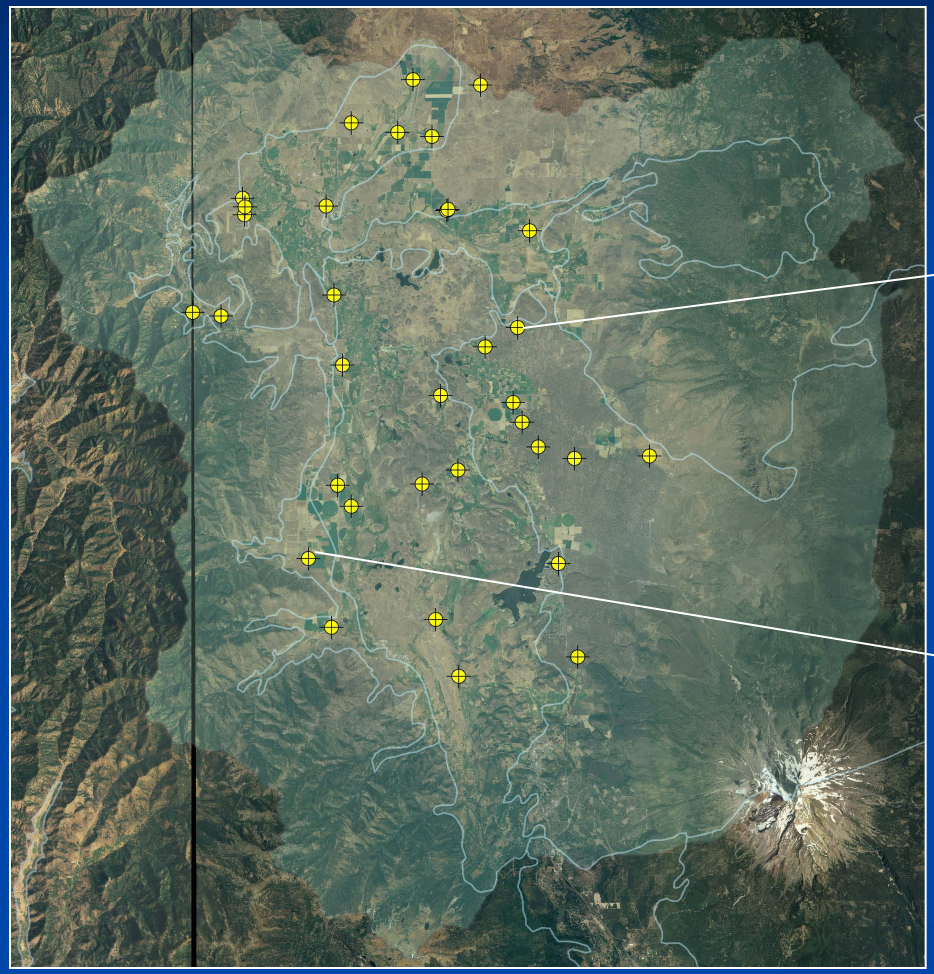


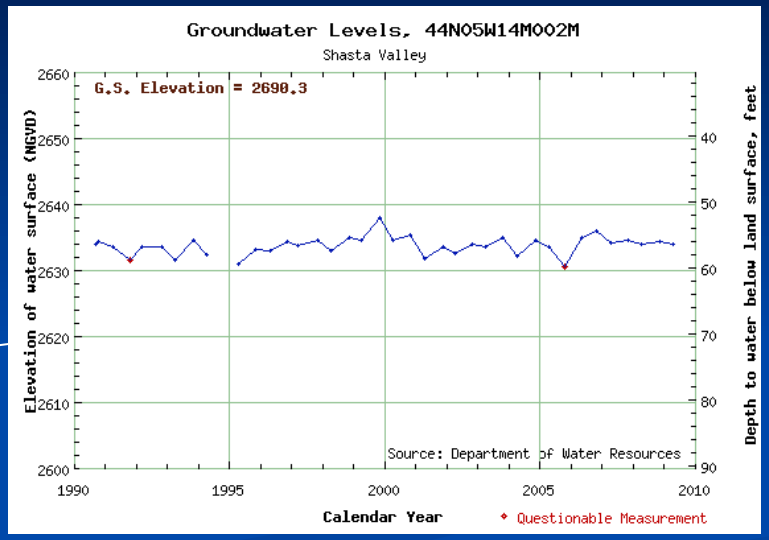
Scott Valley Groundwater 2009

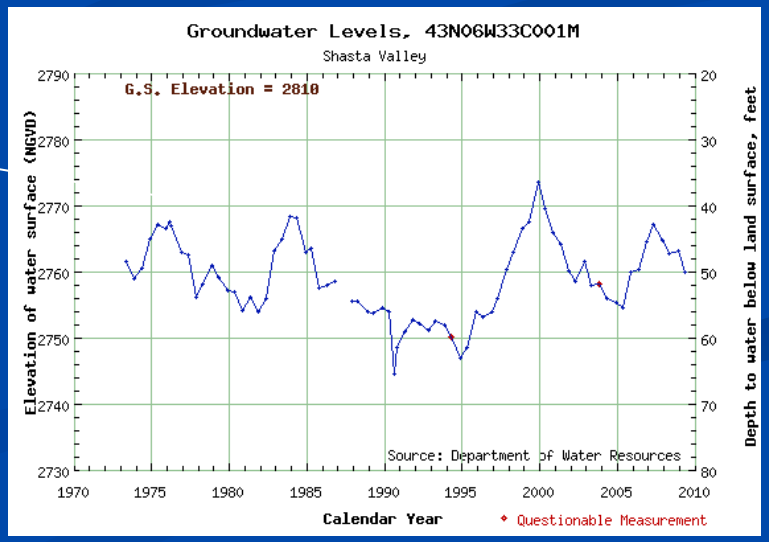
Spring 2008 – Spring 2009 Changes in Groundwater Levels

- Average Change: -7.0 feet
- Greatest Change: -19 feet

Shasta Valley Monitoring Grid







Shasta Valley Groundwater 2009

Spring 2008 – Spring 2009 Changes in Groundwater Levels

- Average Change: -2.1 feet
- Greatest Change: -7.0 feet

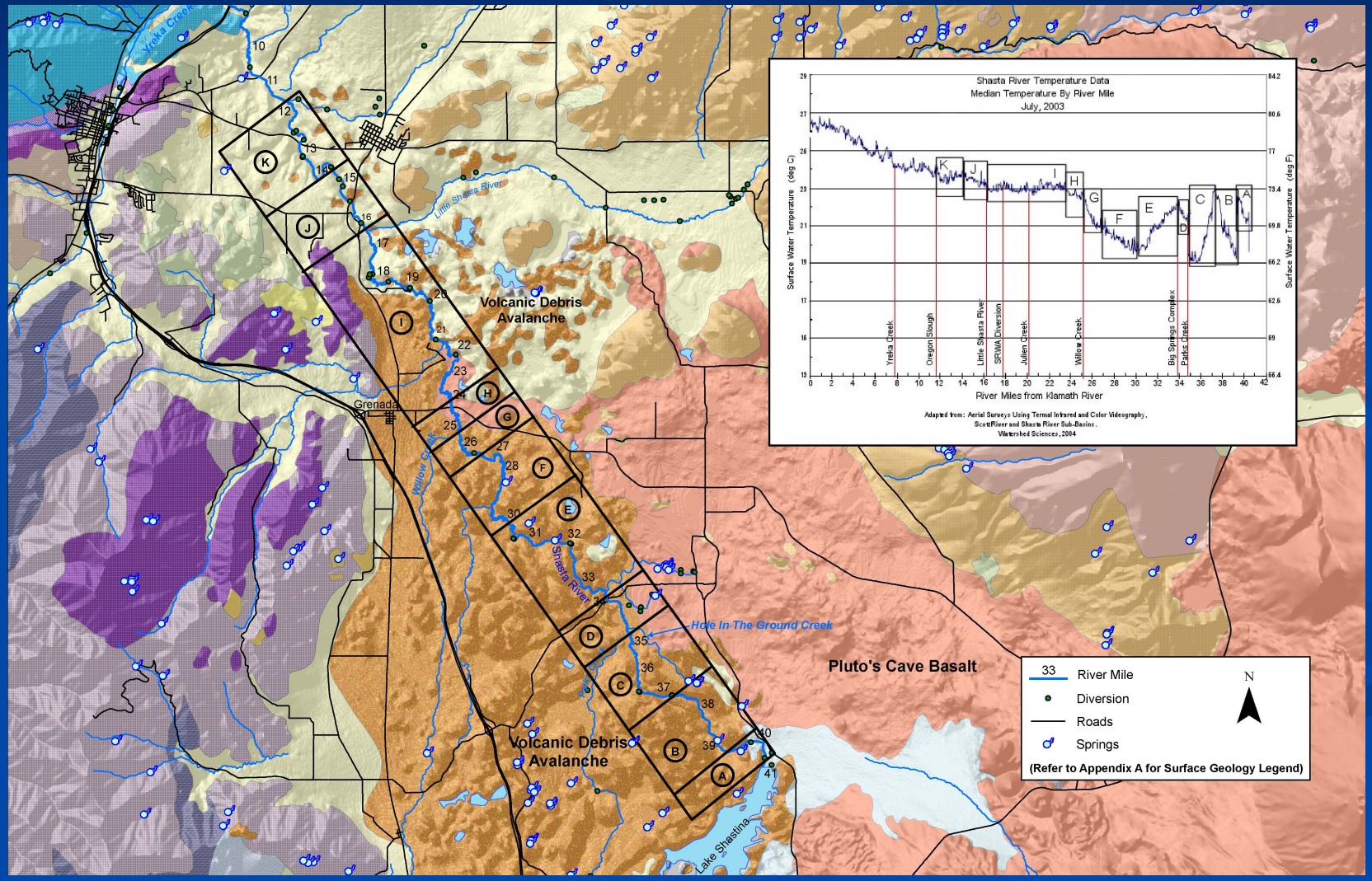
Groundwater Level Spring Change Summary

- Butte Valley
  - Average Change: -2 feet
  - Greatest Change: -4.5 feet
- Scott Valley (peripheral; need more data)
  - Average Change: -7.0 feet
  - Greatest Change: -19 feet
- Shasta Valley (greater changes in Montague region)
  - Average Change: -2.1 feet
  - Greatest Change: -7.0 feet

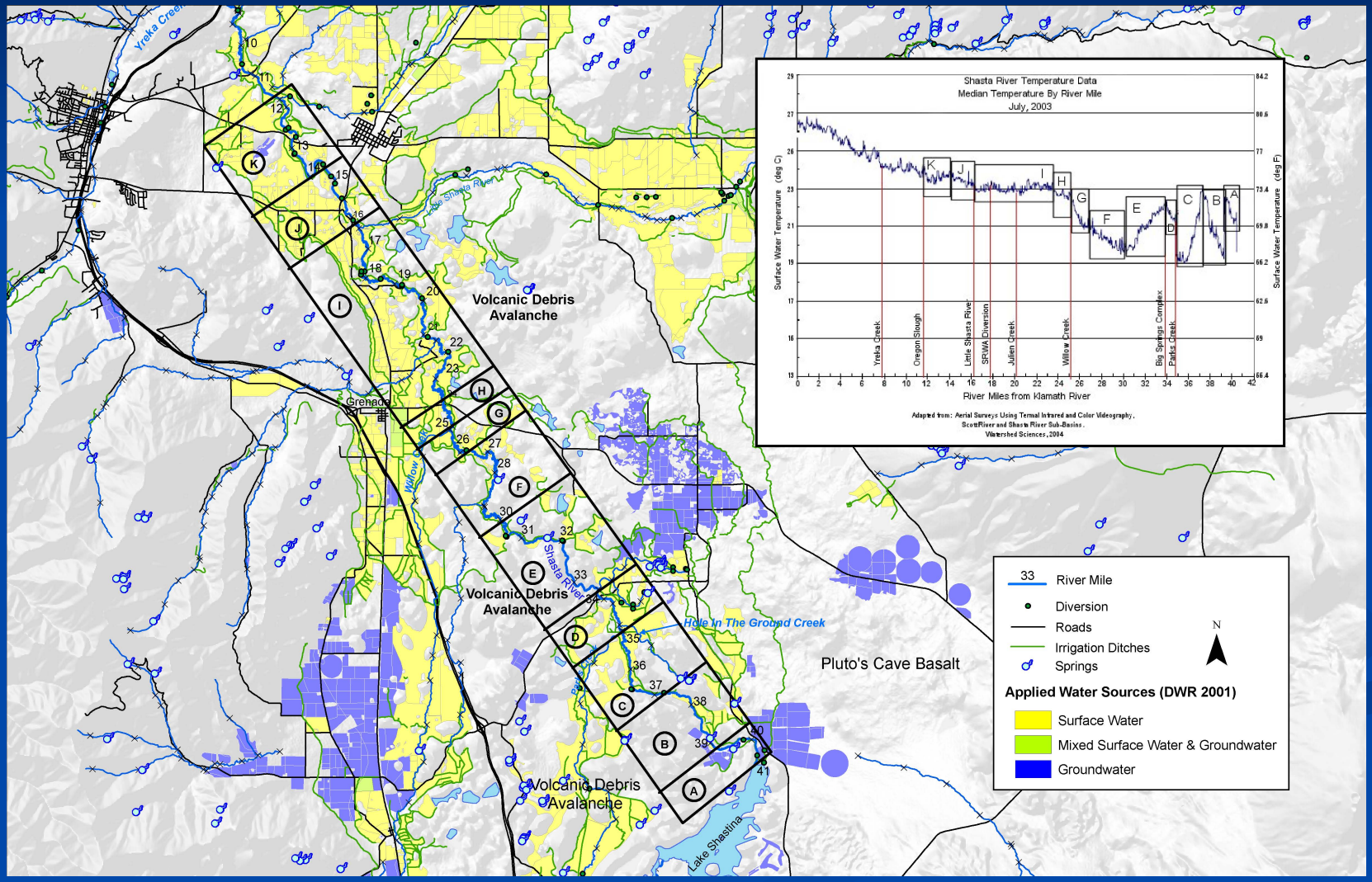
Shasta Valley Groundwater Characterization Efforts

- Shasta Valley RCD/DWR Groundwater Data Needs Assessment 2003 to 2008
- 2008 Shasta Valley RCD Groundwater Capacity Building Grant ($50,000 funding is on hold)
- Technical Advisory Committee and Public Outreach (still to be started)

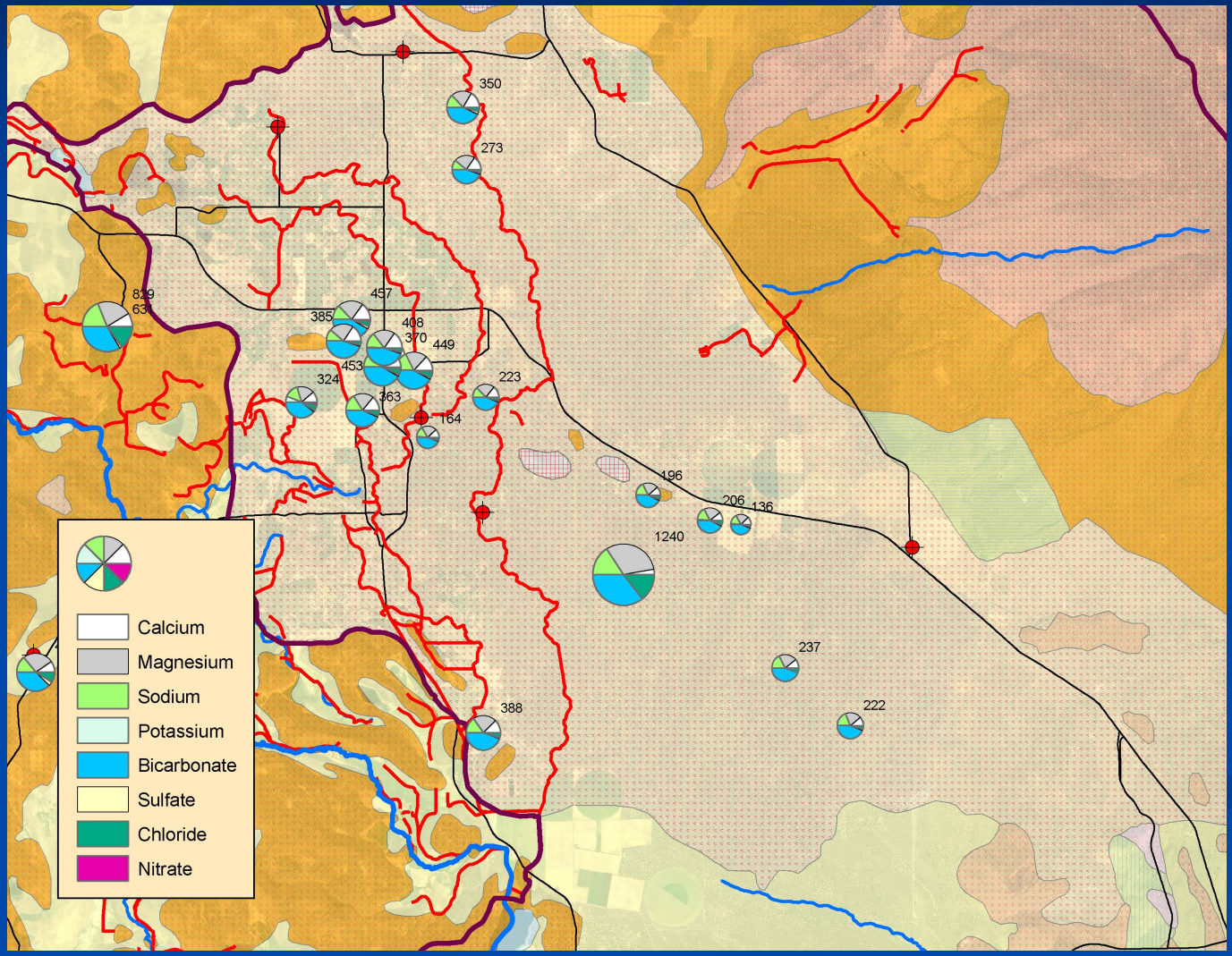
SV Surface Geology and Stream Temperature



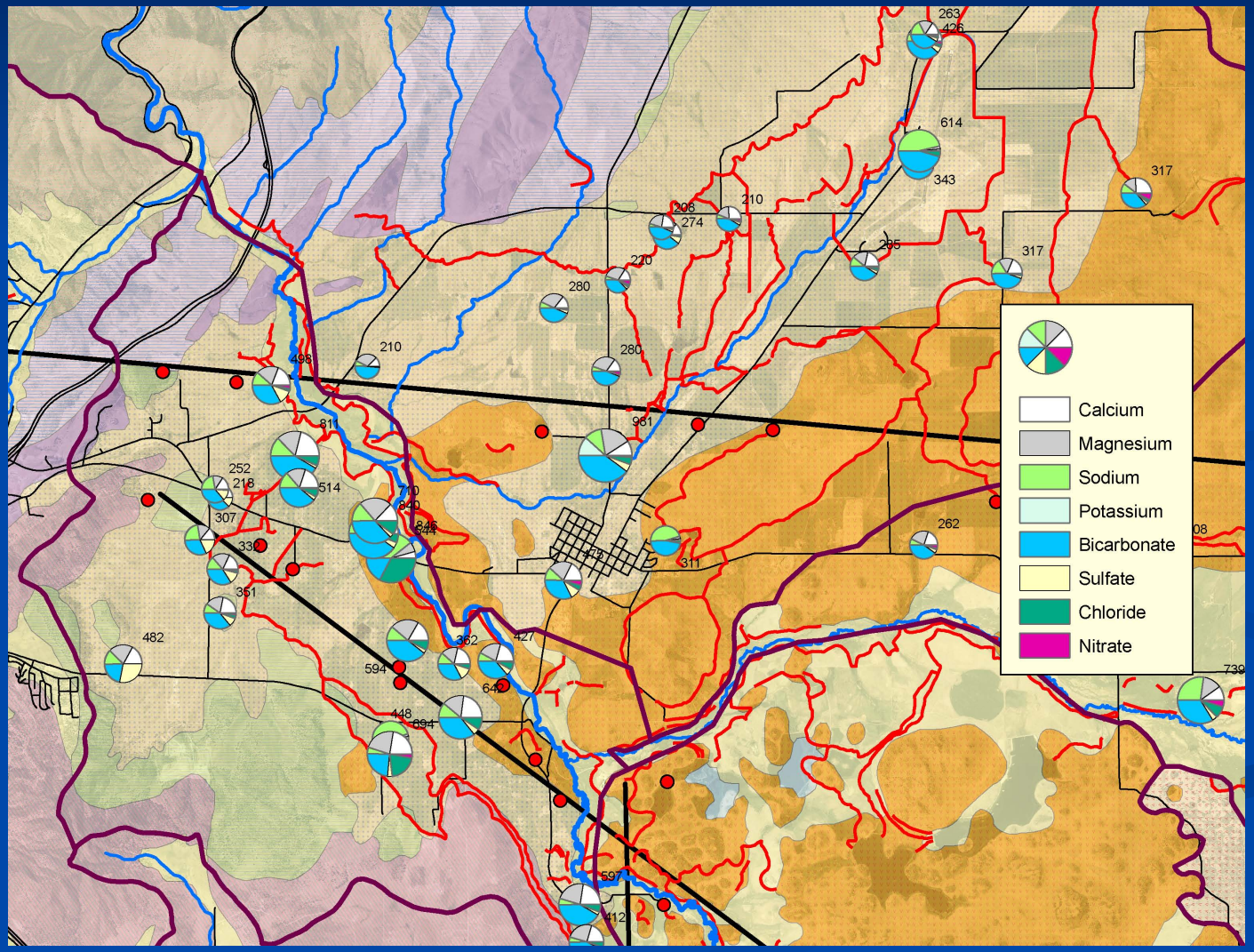
SV Applied Water Source and Steam Temperature



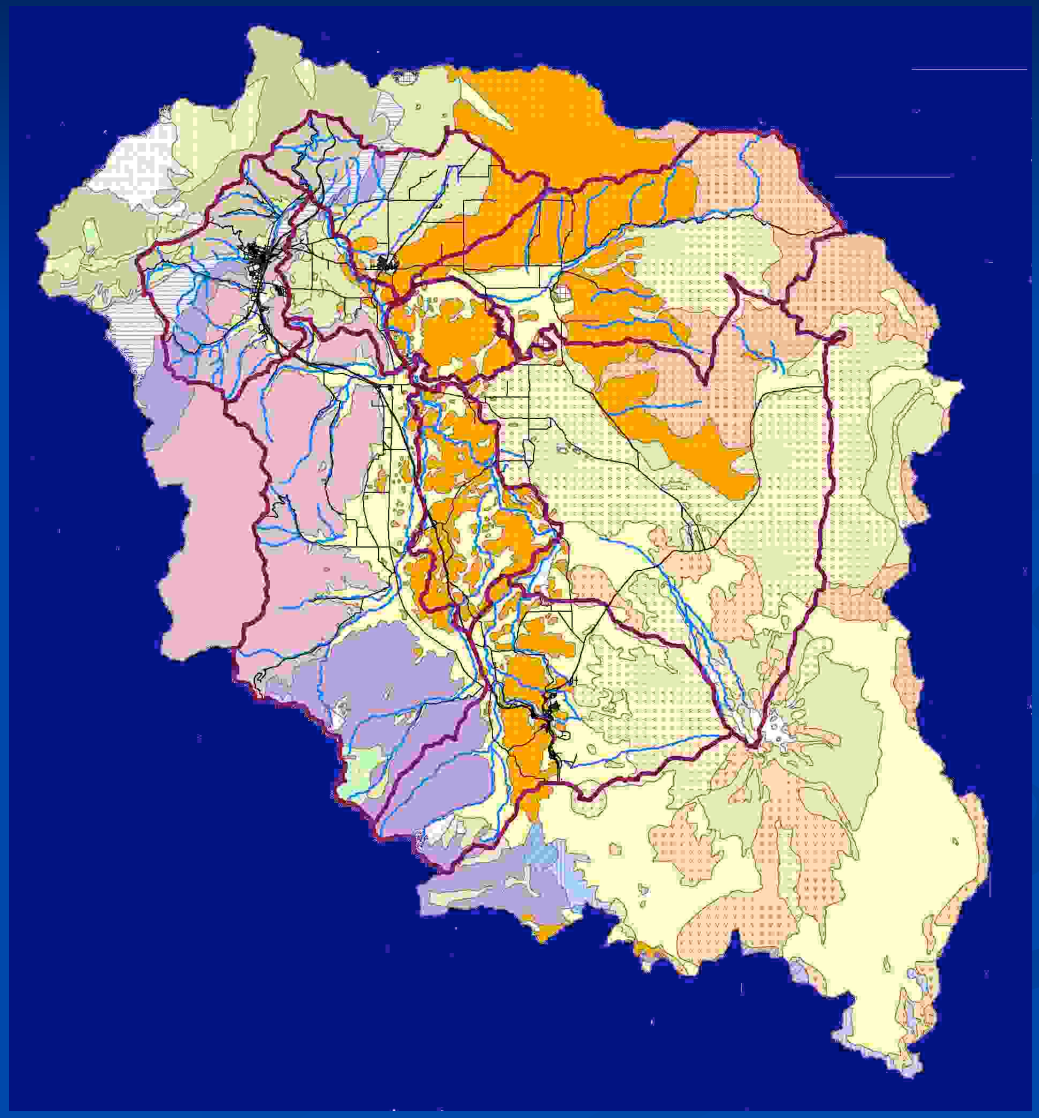
SV Groundwater Chemistry
Pluto's Cave Basalt



SV Groundwater Chemistry
Montague



SV Hydrologic Regions



SV Data Needs (the short version)

- Define interaction of groundwater and surface water
- Define effects of applied water with respect to:
  - Groundwater Recharge
  - Groundwater Discharge
- Identify impacts of resource management actions (resource conservation… what are the effects on the entire hydrologic system?)
- Develop resource planning data to define future levels of development (sustainability)
- Clearing define environmental needs

Discussion